

Appln. No. 09/388,010

Docket No. 15-0195

REMARKS

Claims 5 and 10 are currently pending in the subject application, and are presently under consideration. Favorable reconsideration of the application is requested in view of the comments herein.

None of the references cited teach or suggest fast Fourier Transform means to transform the successive blocks of data microphone output signals to a frequency domain representation to facilitate filtering in the frequency domain as recited in claim 5. Furthermore, none of the references cited teach or suggest filtering a block of data in the frequency domain, transforming filter weight values back to the time domain using an inverse fast Fourier transform, zeroing out portions of the filter weight values that give rise to unwanted circular convolution, and converting the filter values back to the frequency domain as in claim 10.

REJECTION OF CLAIMS 5 AND 10**UNDER 35 U.S.C. §103(a)**

Claims 5 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Marash (U.S. Patent No. 5,825,898) in view of Coker (U.S. Patent No. 4,581,758). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Marash shows a frequency selective constraint adaptive filter that includes a Finite Impulse Response (FIR) filter and a Least Mean Square (LMS) weight updating unit. A flat frequency reference channel passes through the FIR filter to produce a canceling signal. A difference unit subtracts the canceling signal from the main channel to generate an output signal. However, Marash does not teach that the signal is transformed to the frequency domain for comparison or for updating the filter weights, nor does Marash teach that the signal filtered in the frequency domain as recited in the amended claims.

Furthermore, Marash teaches a frequency selective weight constraint unit, which after the filter weights have been adapted to minimize the error, performs an FFT of the

Appln. No. 09/388,010

Docket No. 15-0195

weights, truncates the values of the filter weight representation, and converts the truncated frequency representation values with an IFFT back to new filter weight values.


In contrast, amended claims 5 and 10 recite updating the filter weights in the frequency domain, whereas Marash does not perform the FFT until after the filter weights have already been adapted. Furthermore, amended claims 5 and 10 recite transforming the filter weight values back to the time domain using an inverse Fast Fourier Transform, whereas Marash converts truncated frequency representation values using an inverse fast Fourier Transform. Marash stops here and stores the filter values in the time domain (see also FIG. 11, steps 400-430) and does not zero out portions of the weight values that give rise to unwanted circular convolution, nor does Marash convert the filter values back to the frequency domain, as recited in the amended claims.

None of the aforementioned deficiencies noted for Marash are cured by Coker. Therefore, for the reasons set forth Applicant requests withdrawal of this rejection.

CONCLUSION

In view of the foregoing remarks, Applicant respectfully submits that the present application is in condition for allowance. Applicant respectfully requests reconsideration of this application and that the application be passed to issue.

Respectfully submitted,
TAROLLI, SUNDHEIM, COVELL & TUMMINO, LLP


Christopher P. Harris
Reg. No. 43,660

526 Superior Avenue
1111 Leader Building
Cleveland, Ohio 44114
Telephone: (216) 621-2234 x106
Facsimile: (216) 621-4072

RECEIVED
CENTRAL FAX CENTER
SEP 22 2003

OFFICIAL